REMARKS

In the official action the claims were rejected under 35 USC §112, §101, and §102. These rejections are respectfully traversed, particularly in view of the amended claims.

Claim Rejections under §112

The Examiner rejected claim 1 as allegedly indefinite. The applicant respectfully traverses this rejection and submits that the claim is clear and definite on its face. The Examiner lists as "parameters" a number of words found in claim 1. The Examiner then expresses that the claim is indefinite "because it is unclear how many instances of the above parameters Applicant is claiming."

This is not understood. The question posed by the Examiner does not seem relevant nor directed to the claim as actually written. First, "items" and "natural items" are one and the same, as is clear from the claim, and they are not "parameters". They are the collection of things, such as birds, rocks, mammals, trees, etc., from among which an observed item is to be identified. The preamble of the claim clearly states that the portable computer device is for identifying natural items observed by a user from a collection of natural items. Subparagraph (c) again refers to "items in

the collection of items". Since "items" have been referred to above, this is by definition and rules of antecedent basis the same items as the "natural items" in the "collection of natural items" (e.g. a collection such as birds). It is not necessary that the applicant repeat "natural items" at each occurrence, because the claim in later paragraphs is referring back to "items" or "the collection of items", and the natural items are clearly the only items that provide antecedent basis. One of skill in the art would find this aspect of the claim perfectly clear.

Moreover, the items are not "parameters" as are the attributes and the values under each attribute. Nor does the word "possibilities" refer to any parameter that is to be chosen or selectable; it simply means possibilities, a commonly used and well-understood noun. Claim 1, in the third to last paragraph, recites "reviewing various values presented by the portable computer device as possible values under the subject attribute". Then the paragraph goes on to recite, after a value is selected for that attribute, "then selecting another attribute, reviewing values presented as possibilities for that attribute and selecting a value. . ." These words and phrases are submitted to constitute clear and normal use of the English language. In both cases the "possible values" or "possibilities" are very clearly stated as meaning possible

values under an attribute. The context of the word "possibilities" is, in the first instance of the word, "reviewing values presented as possibilities for that attribute and selecting a value." It is straightforwardly clear that "values presented as possibilities for that attribute" refers directly to values. It is the same as the "possible values" which is recited two lines earlier.

Further, the word "possibilities" as used in the last two lines of the same paragraph is used in a very clear way to refer to the items of the collection. The next to the last line of that paragraph says "to further reduce the number of possibilities in the items of the collection." The last line of the paragraph also refers to the items in the collection, characterizing the search means as "progressively eliminating non-matches from a list of possibilities." For increased clarity, the words "in the items of the collection" are now added after that last occurrence of "possibilities". It is submitted no further amendment is needed, but if the Examiner does not like the reference, several lines above, to "reviewing values presented as possibilities for that attribute", the applicant is willing to change "possibilities" in that occurrence to "possible values".

Thus, it is clear that "items" (which means "natural items") and "possibilities" are not parameters but merely

refer, in the case of values, to a range of values from which the user can make a selection, and in the case of the items, possibilities that remain for identity of the natural item observed in the field, from the items of the entire collection. Attributes and values can be considered as parameters in the step-by-step elimination search performed by the search means. As is clearly explained in the specification, attributes are features such as, in the case of birds, bird color, bird size, bird silhouette, bird wingspan, nature of bird song, and location where observed. "Values" are exactly as explained in the specification: the actual value from a list of values that could be selected for each attribute. For example, if the attribute is bird color, the values might be black, brown, red, orange, gold, blue, and many other values which could each be a combination of colors. The applicant respectfully urges the Examiner to review the specification, because all of these attributes, values and step-by-step elimination search, as well as the types of items in different collections that can be the subject of the search, are very clearly explained.

Therefore, the applicant rejects as improper the Examiner's last sentence on page 2. It is not proper to assume that the word "attribute", apparently used thirteen times in claim 1, refers only to a single attribute. The third paragraph of claim 1 very clearly states "a series of

selectable attributes". Claim 7, which incorporates the subject matter of claim 1, notes that the items are birds, and the attributes include silhouette, wingspan, color of a designated part of the bird, and eye color. There absolutely can be no intelligent review of these claims if one is to assume there is only one attribute.

Further, regarding "item", it is a "collection of natural items" that is being described. The Examiner seems to be stating that these items will be considered as including only one item, and again this improper, contrary to the claim language and completely contrary to the specification.

Further, "the eight instances of value" cannot be considered as only one value, for reasons expressed above. The attributes are defined in the third paragraph of claim 1 as having under each attribute a plurality of values. The claim states "a plurality of values for such attributes are stored in the data storage."

Claim 1 clearly describes a guide in the form of a portable computer device that has a programmed microprocessor and data storage and carries out a search, based on step-by-step user inputs, that by process of successive elimination identifies an item observed in the field by the user. The wording of the claim is clear in its face. The Examiner's characterization in the last paragraph on page 2 of the action

seems to contradict and cancel the clear meaning of the terms in the claim, and this may have affected the Examiner's opinion on §101 and §102 issues in the pages that follow. It is respectfully requested that the Examiner reconsider the §112 rejections and again evaluate the features of claim 1, particularly in light of the explanations given in the specification.

Claim Rejections Under §101

The Examiner points out the whereby clause and tries to find an error, stating the claimed final result is not useful, concrete or tangible. This type of rejection is usually made against a method claim; the whereby clause is not a final step of a method, but simply a statement of advantage achieved by the structure outlined above.

The Examiner says it is not useful to obtain a non-null result that comprises a plurality of search results having no claimed relevance to the search criteria. However, this is not what is claimed and can't be inferred from the claim. It is not understood why the Examiner states the results have no claimed relevance to the search criteria -- the result has every relevance to the search criteria. Going through the claim, the results follow from the search criteria. If a user enters, for example, correct data observed in the field

reflecting the observation of an American robin, this will give a non-null result which is that the observed bird is an American robin.

Further, if a different person observes an American robin and again enters the correct data relating to what is observed, the same result will obtain. Thus, it is not true that a first user and second user will not obtain a consistent search result -- it simply depends on entering the correct observations regarding data from observations of the item in the field.

Further, the Examiner's comments regarding "thirteen attributes, thirteen items, three possibilities and eight values" are not understood. The Examiner claims the final result is not tangible in that it is unclear what the search result includes, regarding attributes, items, possibilities or values such that a user can identify a natural item in the field. This does not seem to reflect what is outlined in claim 1.

It is important that the Examiner fully understand the invention, which is fully explained in the specification. The penultimate paragraph of claim 1 describes the elimination means, which is a very important feature of the invention. This paragraph recites that the elimination means eliminates further attributes that become irrelevant or redundant after selection by a user of a particular value for an attribute.

What this means is that, for example, if the user enters that he is in northern California when making the observation, certain birds (if birds are the items in the collection of natural items) will be eliminated, because those birds are not found in northern California.

Finally, the Examiner's last paragraph on page 3 does not seem to follow. The position of the Examiner is that the final result, producing a non-null result of the search, is not useful. However, it is useful as very clearly explained in the specification, because it will provide a result. Whether the result is the correct result depends entirely on whether all the inputs by the user were correct. If the user enters that the bird has orange feet, for example, when it actually had yellow feet, then this is a user error and, although the search will provide a non-null result, it will not be the correct result. The elimination system prevents an impossible value choice by the user, i.e. a conflict between user inputs, and thus does ensure a result.

Also, the Examiner's comment regarding the natural item that may not be included in the database is really not relevant as the reason for making such a statement is not understood. The claim properly assumes that the database is correct. If the user has a database applicable to, for example, the western United States, but he is standing in eastern Canada with his

observations, then yes, the item observed might not be in the database because the user is using the wrong database. That, however, is not relevant to analysis of this claim.

The §101 comments of the Examiner, and the rejection, do not seem proper, should be reconsidered, and are traversed.

Claim Rejections Under §102

All of claims 1 through 21 were rejected as allegedly anticipated by the Kevan published application, No. 2002/0152225. This rejection is strongly traversed. Kevan is not applicable.

The applicant objects to the Examiner's rejection because it simply sets forth all of the limitations of the applicant's claim 1, *verbatim*, simply stating that Kevan shows each and every of these features. This is very clearly not true.

The Kevan reference describes a procedure and means for downloading information to an electronic field guide from a desktop computer such as a PC. Kevan does not describe a searching procedure or tool. Most certainly, Kevan does not describe anything close to the step-by-step elimination procedure carried out by the searching means in claim 1, especially with the "elimination means" specifically recited in the penultimate paragraph, which states that once a user selects a particular value for one attribute, all attributes

that become irrelevant because of that selection are eliminated from any further consideration in that search; and further that any values which become irrelevant or redundant under further attributes in the search, made irrelevant because of a selection of a value for an attribute as noted above, are eliminated as possible values in the continuation of the search.

The following is a paragraph-by-paragraph review of the paragraphs of claim 1 which the Examiner states are found in the Kevan reference:

A housing for the portable computer device, with a programmed microprocessor, data storage, etc.: Kevan does have these features.

Means in the microprocessor and data storage for displaying to the user a series of selectable attributes which vary among items in the collection of natural items, etc.: It is not at all clear that Kevan includes this, because Kevan does not display for the user a series of attributes which are selectable by the user. Regarding Figure 1, pointed to by the Examiner as supporting this conclusion, Figure 1 is simply a schematic showing downloading of data from a desktop to a portable computer -- it shows the desktop computer, the portable, and an arrow. Figure 1 has absolutely nothing to do with selectable attributes that vary among items in a

collection of natural items. The Examiner's reference to Figure 1 in this context is simply not understood.

The next paragraph, with seven subparagraphs listed (a) through (g), provides that the values for the various attributes are in a plurality of the data types listed in (a) through (g). In other words, the various attributes in the search system, which in the case of birds could be, for example, wingspan, body size, color of a designated part of the bird, sounds produced by the bird, tail shape, etc., are in at least two of the data types listed in (a) through (g).

First, Kevan does not disclose a search system and particularly not a search system with a series of selectable attributes. Thus, the "various attributes" recited in this paragraph are not present in Kevan. Regarding the various data types listed in (a) through (g), Kevan does disclose images, text and audio files, but this is simply for the purpose of a multimedia presentation to the user of a field guide. Kevan's field guide is similar to, for example, a book-type field guide for trees or birds, but presented on a computer where images or text can be presented on a screen, and video or sounds can be generated by the computer device. It is simply a means of presentation of the characteristics of a bird, for example, to the user, just as is done with the still pictures and text in a field guide book.

Regarding "number values" as one of the data types recited in this paragraph of claim 1, the Examiner points to paragraph 65 of Kevan, simply stating that text can be displayed identifying all regions in which a selected bird might be found. This has absolutely no relationship to number values as recited in the claim (which can be, e.g., wingspan or bird height).

Moving to the next paragraph, claim 1 defines a search means of the microprocessor that enables and prompts a user to perform a step-by-step elimination search to identify an item observed in the field by first selecting an attribute, reviewing various possible values presented by the computer device under the subject attribute, then selecting a value for the attribute, then moving on to another attribute and repeating this procedure, and with the search means progressively eliminating non-matches (items that don't match the selected features) from a list of possibilities in the items of the collection.

The Examiner simply repeats this entire paragraph *verbatim* and points to Kevan paragraph 72 as disclosing the same thing. <u>This is absolutely and clearly not true</u>. The Examiner is urged to read paragraph 72 again. It has nothing whatsoever that relates to the content of the subject third-to-last paragraph of the applicant's claim 1. It simply states that in Kevan's

device the user selects birds to be downloaded to a Palm, all birds currently selected are shown on the screen, and the user is advised of the memory capacity required for each bird, relative to a limit of storage capacity in the Palm. This is nothing more than a simple downloading procedure; it consists of downloading guidance. Kevan's device is not a searching tool, it does not do step-by-step elimination, it does not present a series of attributes and a plurality of selectable values under each attribute, and it really has no relevance to the invention, other than it is electronic, it is a programmable computer, and it is capable of displaying birds and information about birds.

The next paragraph of claim 1, which is the penultimate paragraph, recites the important feature which the applicant calls smart attribute and value elimination. By this search system, once a user picks an attribute, which might be, for example, bird foot color, and once the user selects a color value under that attribute, such as "yellow", then the system eliminates all irrelevant or redundant attributes, and all irrelevant or redundant values under attributes which can themselves still remain. For example, if the foot color was chosen as yellow, this might limit the possible identity of the observed bird to a single group or family of birds. If every one of the birds in that group has, for example, red eyes, then

"eye color" will be eliminated as an attribute - eye color will be redundant. In addition, once that yellow leg color has been selected, a further attribute of "wingspan" might have some of its possible values eliminated. This could be the case if in fact all birds with yellow feet in the region at issue have a wingspan less than twelve inches, for example. All possible values greater than twelve inches under the wingspan attribute will be eliminated, because they are irrelevant (impossible) due to narrowing of the search by identifying yellow as the foot color. Note that this elimination avoids conflicting entries by the user, preventing a null result.

Another example could be a user's entering "Arizona" as a value under a "location" attribute. This value selection will eliminate many classes of birds, all that are not found in Arizona. If, e.g., all birds that are found in Arizona have orange feet, then the foot color attribute will be eliminated. If no birds found in the state have wingspan over three feet, then values of over three feet will be eliminated from the wingspan attribute.

The content of this penultimate paragraph of claim 1 is manifestly absent from the Kevan disclosure. The paragraphs referred to by the Examiner have absolutely no relevance whatsoever to the elimination means recited in this paragraph, and the applicant's attorney is baffled as to why these

paragraphs would be cited. The paragraphs all relate to provisioning of a portable electronic field guide, by downloading information from a PC to the portable computer. Selections made by the user in the Kevan system are selections of what is to be downloaded from the main computer to the portable field computer, nothing to do with searching and elimination.

The "whereby clause" in claim 1 does not recite components or software of the field-useable guide described in the claim, but merely states a result achieved by the searching procedure executed by the hardware and software. This is not a method step. The whereby clause merely reflects that the step-by-step elimination search assures against a null result, which is necessarily the result because of the elimination means, which removes as possible value selections all values which would be impossible given the selections already made by the user. If this elimination means were not part of the system, then a user would be permitted to select an invalid choice, e.g. orange wingtips on a bird with yellow feet, which for purposes of this example we are assuming is impossible, there being no such bird. Such an invalid selection would produce a null result, but the elimination means avoids that possibility.

It is manifestly clear from the above, as well as by a review of claim 1 against the disclosure of Kevan, not only

that Kevan falls very far short of anticipating claim 1, but also that Kevan has absolutely nothing to do with the invention recited in claim 1, having none of the important features of the claim.

Claims 1 through 21 are allowable over the prior art and allowance is solicited.

The official action does not state any grounds of rejection against claims 22-43.

Claims 22-43 are method claims, with claims 22 and 34 being independent claims. All of claims 22-43 were merely dismissed in the official action without any specific rejection or application of prior art against the claims. The action simply says "Regarding claims 22-43, examiner maintains such claims can be rejected under the prior art made of record in this Office action." This is not sufficient. MPEP §706 requires that the official action "clearly articulate any rejection early in the prosecution process." The vague statement regarding claims 22-43, that the "examiner maintains such claims can be rejected", clearly is not sufficient.

If the Examiner intends to reject claims 22-43, application of prior art against the steps of these method claims is requested, along with citation of the patent statute under which each claim is rejected.

Claim 22 recites a method which is carried out by a

portable computer field guide for facilitating a search to identify natural items observed in the field by a user, from a collection of natural items from which information is stored in the data storage of the field guide with characteristics or attributes for the items. The claim is clearly distinct from anything in Kevan, and in fact Kevan, as in the apparatus claims, has no relevance at all to the method of claim 22.

Claim 22 requires displaying a series of selectable attributes which vary among the items in the collection of natural items, and each attribute having one or more data types in which a plurality of values for such attributes are stored in the data storage. Kevan discloses nothing of the kind, and does not even disclose a searching method.

Claim 22 requires a plurality of the listed data types used for values of the various attributes. Further, the claim recites that the field guide receives an input from a user of a particular selected first attribute from the series of attributes. Kevan does not disclose a series of attributes, nor selection from a series of attributes.

The claim goes on to require display to the user of all possible values under the selected attribute; receiving the user's input selecting one of the values from the series of possible values; and reviewing the items in the data storage following the selection of a value and eliminating items

precluded by such user selection, as explained above in the context of claim 1. The device eliminates further attributes that become irrelevant or redundant due to the user's selection of a particular value for the first attribute, and also eliminates certain values under other attributes, which values have become irrelevant or redundant as choices due to prior selection of the particular value under the first attribute. Examples of this are explained above and are explained at length in the specification.

The claim recites, as the search progresses, the portable computer device's continuing to review remaining items in the data storage, remaining afer elimination by selections by the user, and continuing to narrow the number of choices for attributes that can be selected by the elimination process recited and explained above. Nothing in Kevan relates remotely to these steps.

The final step of claim 23 is that the portable computer device displays to the user a result in the form of an identified natural item from the collection of natural items. Kevan discloses nothing relevant to this, and is not even remotely applicable or suggestive of these steps.

Claim 34 recites a method for creating and defining a computer database with selected content, to facilitate searching using a computer program, the content comprising a

collection of natural items. This claim recites the steps of the inventive method including selecting at least some of a list of data types for inclusion in the database and for expression of values; defining a collection of characteristics or attributes for the items in the collection; assigning a plurality of values in one or more the data types to attributes defined in the database; creating and entering natural items into the database (e.g. birds) including assigning a name and icon for each item; assigning attributes and values to the items; organizing the attributes in a hierarchical list to define an order for presentation to the user; and saving the database to a computer device platform so the user can use the database in browsing or searching.

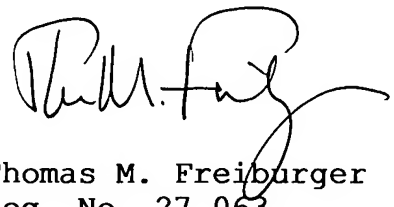
Again, the content of this claim is not shown in Kevan or suggested in any way by Kevan. Kevan simply describes a system for downloading selected items of data from a desktop computer to a portable field computer device, with attention to the storage capacity of the portable device (e.g. Palm) so as not to attempt to exceed that storage capacity. Kevan does not involve defining a collection of characteristics or attributes for the items in a collection. Kevan does not assign a plurality of values to attributes defined in the database. Kevan does not organize attributes into a hierarchical list to define an order for presentation of the attributes to a user desiring to make a search of the database.

Kevan is not concerned with searching the database, only

in using a database to present images and other information to a user regarding particular birds. Kevan's device is simply an electronic multimedia field guide for presentation to a user, not a searching tool. Thus, Kevan does not involve, disclose or suggest the steps enumerated above.

All of the claims stand apart from Kevan and other prior art of record, and Kevan in no way suggests any of the claimed subject matter. All of claims 1 through 43 should be allowed, and allowance is solicited. However, if the Examiner believes issues remain, a telephone call to the undersigned would be appreciated before issuing a further action. A discussion between the Examiner and the attorney regarding the nature of this invention might be fruitful.

Respectfully submitted,



Date: March 8, 2007

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